
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2010; month=5; day=14; hr=8; min=58; sec=51; ms=110;]

Validated By CRFValidator v 1.0.3

Application No: 10553028 Version No: 2.0

Input Set:

Output Set:

Started: 2010-05-03 18:45:30.447

Finished: 2010-05-03 18:45:37.198

Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 751 ms

Total Warnings: 601

Total Errors: 0

No. of SeqIDs Defined: 601

Actual SeqID Count: 601

Error code		Error Description									
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(1)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(2)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(3)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(4)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(5)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(6)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(7)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(8)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(9)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(10)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(11)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(12)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(13)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(14)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(15)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(16)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(17)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(18)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(19)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(20)

Input Set:

Output Set:

Started: 2010-05-03 18:45:30.447 **Finished:** 2010-05-03 18:45:37.198

2010 00 00 10:10:07:190

Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 751 ms

Total Warnings: 601

Total Errors: 0

No. of SeqIDs Defined: 601

Actual SeqID Count: 601

Error code Error Description

This error has occured more than 20 times, will not be displayed

W 251 Found intentionally skipped sequence in SEQID (433)

W 251 Found intentionally skipped sequence in SEQID (435)

SEQUENCE LISTING

```
<110> BELMARES, MICHAEL P.
      LU, PETER S.
       GARMAN, J. DAVID
      JECMINEK, ALBERT A.
      KHARBANDA, SURENDER
      AGATA, NAOKI
      KUFE, DONALD W.
<120> MODULATION OF MUC1 MEDIATED SIGNAL TRANSDUCTION
<130> ARBV:003US
<140> 10553028
<141> 2010-05-03
<150> PCT/US2004/011195
<151> 2004-04-12
<150> 60/462,111
<151> 2003-04-11
<150> 60/467,728
<151> 2003-05-02
<150> 60/475,595
<151> 2003-06-04
<150> 60/502,111
<151> 2003-09-11
<150> 60/524,188
<151> 2003-11-21
<160> 601
<170> PatentIn version 3.5
<210> 1
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 1
Arg Ile Val
<210> 2
```

<211> 3 <212> PRT

```
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 2
Leu Tyr Ile
<210> 3
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 3
Ser Val Val
<210> 4
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 4
Ala Glu Val
<210> 5
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 5
Ser Gln Leu
<210> 6
<211> 3
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Synthetic peptide
<400> 6
Ser Ala Ala
<210> 7
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 7
Ser Asp Ala
<210> 8
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 8
Ser Leu Val
<210> 9
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 9
Ser Gly Ile
<210> 10
<211> 3
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Synthetic peptide
<400> 10
Ser Lys Val
<210> 11
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 11
Phe Tyr Ala
<210> 12
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 12
Thr Arg Val
<210> 13
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 13
Thr Thr Leu
<210> 14
<211> 3
<212> PRT
<213> Artificial Sequence
```

```
<223> Synthetic peptide
<400> 14
Thr Asp Val
<210> 15
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 15
Ser Asp Val
<210> 16
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 16
Tyr Phe Ile
<210> 17
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 17
Tyr Tyr Val
<210> 18
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
```

```
<400> 18
Glu Leu Val
<210> 19
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 19
Ile Trp Ala
<210> 20
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 20
Ala Asn Leu
<210> 21
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 21
Ile Ile Ala
<210> 22
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
```

```
<210> 23
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 23
Tyr Trp Ala
<210> 24
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 24
Ile Trp Ser
<210> 25
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 25
Ile Asn Leu
<210> 26
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 26
```

<400> 22

Arg Ile Ala

```
<210> 27
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 27
Val Glu Val
<210> 28
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 28
Tyr Ile Val
<210> 29
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 29
Tyr Gln Ile
<210> 30
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 30
```

Val Glu Val

```
Leu Met Leu
<210> 31
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 31
Val Pro Val
<210> 32
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 32
Ile Val Leu
<210> 33
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 33
Val Ser Leu
<210> 34
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 34
Val Trp Val
```

```
<210> 35
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 35
Glu Tyr Val
<210> 36
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 36
Glu Ile Val
<210> 37
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 37
Ile Ile Tyr
<210> 38
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 38
Lys Ile Val
```

```
<210> 39
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 39
Thr Trp Val
<210> 40
<211> 3
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 40
Thr Gln Val
<210> 41
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 41
Ala Arg Gly Asp Arg Lys Arg Ile Val
<210> 42
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 42
Thr Leu Ala Ser His Gln Leu Tyr Ile
```

```
<210> 43
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 43
Gly Met Thr Ser Ser Ser Ser Val Val
     5
<210> 44
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 44
Tyr Gly Ser Pro Arg Tyr Ala Glu Val
<210> 45
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 45
Trp Pro Pro Ser Ser Ser Ser Gln Leu
1 5
<210> 46
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 46
Asp Asp Tyr Asp Asp Ile Ser Ala Ala
              5
```

```
<210> 47
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 47
Leu Lys Pro Pro Ala Thr Ser Asp Ala
<210> 48
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 48
Asp Lys Glu Arg Leu Thr Ser Asp Ala
<210> 49
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 49
Phe Arg Asn Glu Thr Gln Ser Leu Val
<210> 50
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 50
Ala Leu Arg Ala Ser Glu Ser Gly Ile
              5
```

```
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 51
Leu Val Glu Ala Gln Lys Ser Lys Val
<210> 52
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 52
Pro Thr Lys Gln Glu Glu Phe Tyr Ala
<210> 53
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 53
Phe Ser Arg Arg Pro Lys Thr Arg Val
<210> 54
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 54
Ser Ser Gly His Thr Ser Thr Thr Leu
      5
<210> 55
```

<211> 9

```
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 55
Asn Ile Lys Lys Ile Phe Thr Asp Val
<210> 56
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 56
Lys Met Asp Ser Ile Glu Ser Asp Val
<210> 57
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 57
Asp Ser Ser Arg Lys Glu Tyr Phe Ile
<210> 58
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 58
Lys Asn Lys Asp Lys Glu Tyr Tyr Val
<210> 59
<211> 9
<212> PRT
```

```
<220>
<223> Synthetic peptide
<400> 59
Val Thr Asp His Lys Thr Glu Leu Val
<210> 60
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 60
Gln Asp Glu Glu Glu Gly Ile Trp Ala
<210> 61
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 61
Ala Val Ala Ala Thr Ser Ile Asn Leu
<210> 62
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 62
Ala Val Ala Ala Thr Tyr Ser Asn Leu
<210> 63
<211> 9
<212> PRT
<213> Artificial Sequence
```

<213> Artificial Sequence

```
<220>
<223> Synthetic peptide
<400> 63
Ala Arg Gly Asp Arg Lys Arg Trp Ala
<210> 64
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 64
Ala Arg Gly Asp Arg Lys Arg Trp Leu
<210> 65
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 65
Ala Val Ala Ala Thr Gly Ile Trp Ala
<210> 66
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 66
Gln Asp Glu Glu Glu Thr Ile Trp Ala
<210> 67
<211> 9
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Synthetic peptide
<400> 67
Ala Arg Ser Asp Arg Thr Ile Trp Ala
<210> 68
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 68
Ala Arg Ser Asp Arg Thr Ile Ile Ala
              5
<210> 69
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 69
Ala Arg Ser Asp Arg Lys Arg Ile Ala
<210> 70
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 70
Ser Arg Thr Asp Arg Lys Tyr Trp Ala
<210> 71
<211> 9
<212> PRT
<213> Artificial Sequence
```

```
<223> Synthetic peptide
<400> 71
Gln Asp Glu Glu Glu Gly Ile Trp Ser
<210> 72
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 72
Ser Arg Thr Val Arg Glu Ile Trp Ala
<210> 73
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 73
Ser Val Thr Ser Thr Ser Ile Asn Leu
<210> 74
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 74
Ala Arg Gly Asp Arg Lys Ile Arg Val
<210> 75
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
```

```
<400> 75
Ala Arg Thr Asp Arg Lys Val Glu Val
<210> 76
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 76
Ala Arg Gly Asp Arg Lys Tyr Ile Val
<210> 77
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 77
Ser Arg Thr Asp Arg Lys Tyr Gln Ile
<210> 78
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 78
Ala Arg Gly Asp Val Arg Leu Met Leu
<210> 79
<211> 9
<212> PRT
```

<213> Artificial Sequence

<223> Synthetic peptide

<220>

```
<400> 79
Ala Arg Gly Asp Arg Lys Val Pro Val
<210> 80
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 80
Gln Asp Glu Arg Arg Leu Ile Val Leu
     5
<210> 81
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 81
Ala Arg Gly Asp Arg Leu Val Ser Leu
<210> 82
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 82
Ala Arg Gly Thr Arg Leu Val Trp Val
<210> 83
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
```

<400> 83

<223> Synthetic peptide

```
Ala Arg Gly Asp Arg Tyr Arg Ile Val
<210> 84
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 84
Ser Arg Thr Asp Arg Leu Glu Tyr Val
<210> 85
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 85
Ala Arg Gly Asp Arg Leu Glu Ile Val
<210> 86
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 86
Ala Arg Gly Asp Arg Thr Ile Ile Tyr
<210> 87
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
```

<400> 87

```
<210> 88
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 88
Ala Arg Gly Asp Arg Lys Lys Ile Val
<210> 89
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 89
Ala Arg Ser Asp Arg Lys Arg Ile Val
<210> 90
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 90
Lys Asn Lys Asp Lys Glu Tyr Tyr Val
<210> 91
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 91
```

Gly Met Thr Ser Ser Ser Ser Val Val

Ala Arg Gly Asp Arg Arg Arg Ile Val

```
<210> 92
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 92
Ala Arg Gly Arg Arg Glu Thr Trp Val
<210> 93
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 93
Gln Asp Glu Arg Val Glu Thr Arg Val
<210> 94
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 94
Leu Gln Arg Arg Glu Thr Gln Val
<210> 95
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 95
Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Ala
               5
                                   10
```

5

1

```
Ser Ala Asn Leu
         20
<210> 96
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 96
Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr
     5
                       10
Ser Ala Asn Leu
          20
<210> 97
<211> 16
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 97
Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5
                               10
<210> 98
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic peptide
<400> 98
Ser Gly Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp
```

10

Lys Lys Cys

```
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 99

Arg Arg Trp Arg Arg Trp Trp Arg Arg Trp Trp Arg Arg Trp Arg Arg Trp Trp Arg Arg Trp Trp Trp Arg Ar
```

<212> PRT <213>